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EXAMINER

ZIMMER, ANTHONY J

ART UNIT

PAPER NUMBER

1793

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-14 and 25-36, drawn to metal oxide containing compositions.

Group 2, claim(s) 15-19 and 37-41, drawn to metal oxide-containing solution.

Group 3, claim(s) 20-24, drawn to a method of applying metal oxide containing nanoparticles to a substrate.

Group 4, claim(s) 42-59, drawn to a method of making metal oxide-containing nanoparticles.

The inventions listed as Groups 1-3 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The common technical feature between groups 2 and 3 is the metal oxide containing solution. However, such a solution fails to be a special technical feature because it is found in the prior art. US6860924 teaches metal oxide nanoparticles including copper oxide having the required formula and having heteroatom surface ligands (surfactants) that are contained in a solvent. See column 2, lines 1-68. The nanoparticles therein are seen as having the required amount of atoms because they have the required formula and are the size of those of the current inventions. Therefore the groups of claims lack a special common technical feature and thus lack unity.

The common technical feature between groups 1 and 2, 1 and 3, 1 and 4, 2 and 4, and also between 3 and 4 is the metal oxide composition. This common technical feature is not considered to be a special technical feature because it is contained in the prior art. US6860924 teaches metal oxide nanoparticles including copper oxide having the required formula and having heteroatom surface ligands (surfactants). See column 2, lines 1-68. The nanoparticles therein are seen as having the required amount of atoms because they have the required formula and are the size of those of the current inventions. Therefore the groups of claims lack a special common technical feature and thus lack unity.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species I: wherein the solvent is polar

Species 2: wherein the solvent is nonpolar

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Species I: claims 17, 18, 39, and 40

Species II: claims 16, 19, 38, and 41

The following claim(s) are generic: 1-15, 20-37, and 42-59.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The common technical feature between the species is the metal oxide containing solution. However,

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such a solution fails to be a special technical feature because it is found in the prior art. US6860924 teaches metal oxide nanoparticles including copper oxide having the required formula and having heteroatom surface ligands (surfactants) that are contained in a solvent. See column 2, lines 1-68. The nanoparticles therein are seen as having the required amount of atoms because they have the required formula and are the size of those of the current inventions. Therefore the species lack a special common technical feature and thus lack unity.

The examiner has required restriction between product and process claims.

Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder.

All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double

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patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. ZIMMER whose telephone number is (571)270-3591. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ajz

/Steven Bos/
Primary Examiner, Art Unit 1793